

AMENDMENT TO THE CLAIMS

Claim 1. (Amended) A method of initiating oxygen scavenging in a packaging article comprising an oxygen scavenging polymer, comprising:

providing the packaging article comprising the oxygen scavenging polymer, wherein the packaging article comprises an interior surface and an exterior surface;

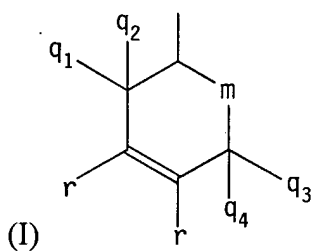
wetting the interior surface of the packaging article with a solution comprising a peroxide, to result in a packaging article with a wetted surface; and

exposing the wetted surface to an initiating factor, to initiate oxygen scavenging by the packaging article;

wherein said method reduces the induction period for oxygen scavenging.

Claim 2. (Original) The method of claim 1, wherein the oxygen scavenging polymer comprises a polymeric backbone and at least one cyclic olefinic pendant group.

Claim 3. (Original) The method of claim 2, wherein the polymeric backbone is ethylenic, and the cyclic olefinic pendant group has the structure (I):



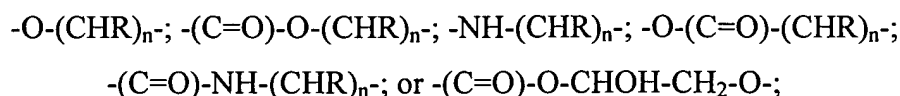
wherein q_1 , q_2 , q_3 , q_4 , and r are independently selected from hydrogen, methyl, or ethyl;

m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1 , q_2 , q_3 , and q_4 is also hydrogen.

Claim 4. (Original) The method of claim 3, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

Claim 5. (Original) The method of claim 3, wherein the oxygen scavenging polymer further comprises at least one linking group linking the backbone with the pendant group.

Claim 6. (Original) The method of claim 5, wherein the linking group is selected from



wherein R is hydrogen, methyl, ethyl, propyl, or butyl; and n is an integer from 1 to 12, inclusive;

Claim 7. (Original) The method of claim 6, wherein the oxygen scavenging polymer is selected from ethylene/methyl acrylate/cyclohexenyl methyl acrylate terpolymer (EMCM) or cyclohexenylmethyl acrylate (CHAA) homopolymer.

Claim 8. (Original) The method of claim 1, wherein the peroxide is hydrogen peroxide.

Claim 9. (Original) The method of claim 8, wherein the solution comprises at least about 0.5% hydrogen peroxide.

Claim 10. (Original) The method of claim 9, wherein the solution comprises at least about 30% hydrogen peroxide.

Claim 11. (Canceled)

Claim 12. (Original) The method of claim 1, wherein the initiating factor is ultraviolet light.

Claim 13. (Original) The method of claim 12, wherein the ultraviolet light has a wavelength of about 254 nm.

Claim 14. (Original) The method of claim 12, wherein the ultraviolet light has a wavelength between about 254 nm and about 400 nm.

Claim 15. (Original) The method of claim 13, wherein the ultraviolet light is provided at a dosage of at least about 100 mJ/cm².

Claim 16. (Original) The method of claim 15, wherein the ultraviolet light is provided at a dosage of at least about 800 mJ/cm².

Claim 17. (Original) The method of claim 12, wherein the exposing step is performed for no more than about 60 sec.

Claim 18. (Original) The method of claim 10, wherein the initiating factor is heat.

Claim 19. (Original) The method of claim 18, wherein the heat is provided to bring the wetted surface to a temperature of at least about 70°C.

Claim 20. (Original) The method of claim 1, wherein the initiating factor is heat and ultraviolet light.

Claim 21. (Original) The method of claim 1, wherein the packaging article comprises a structural layer.

Claim 22. (Original) The method of claim 21, wherein the structural layer comprises polyethylene, low density polyethylene, very low density polyethylene, ultra-low density polyethylene, high density polyethylene, polyethylene terephthalate (PET), polyvinyl chloride, ethylene-vinyl acetate, ethylene-alkyl (meth)acrylates, ethylene-(meth)acrylic acid, ethylene-(meth)acrylic acid ionomer, or paperboard.

Claim 23. (Original) The method of claim 22, wherein the structural layer comprises PET or paperboard.

Claim 24. (Original) The method of claim 22, wherein the packaging article is in the form of a bottle or a gable-top carton.

Claim 25. (Original) The method of claim 1, wherein the packaging article further comprises a transition metal catalyst.

Claim 26. (Original) The method of claim 25, wherein the transition metal catalyst is a cobalt salt, a copper salt, or a manganese salt.

Claim 27. (Original) The method of claim 26, wherein the transition metal catalyst is a cobalt salt selected from cobalt oleate, cobalt stearate, or cobalt neodecanoate.

Claim 28. (Original) The method of claim 1, wherein the packaging article comprises an oxygen barrier layer on the exterior surface and an oxygen scavenging layer that comprises the oxygen scavenging polymer.

Claim 29. (Original) The method of claim 28, wherein the wetting step comprises spraying the interior surface of the packaging article with the solution comprising the peroxide.

Claim 30. (Original) The method of claim 28, wherein the oxygen scavenging layer is a food-contact layer on the interior surface of the packaging article.

Claim 31. (Original) The method of claim 28, wherein the packaging article further comprises a food contact layer on the interior surface, and wherein the oxygen scavenging layer is located between the food contact layer and the oxygen barrier layer.

Claim 32. (Original) The method of claim 31, wherein the food contact layer comprises low density polyethylene (LDPE).

Claim 33. (Original) The method of claim 32, wherein the thickness of the food contact layer is less than about 1 mil.

Claim 34. (Original) The method of claim 28, wherein the oxygen barrier layer comprises at least one polymer selected from poly(ethylene vinyl alcohol), polyacrylonitrile, polyvinyl chloride, poly(vinylidene dichloride), polyethylene terephthalate (PET), silica, polyamides, aluminum foil, or mixtures thereof.

Claim 35. (Original) The method of claim 34, wherein the polymer is PET.